

SHORTER NOTES

THE NAME MELAMPODIUM. — In the Illustrated Flora, 3: 405, we read that *Melampodium*, Greek for black-foot, is without significance. No doubt, however, it refers to the black achenes of the common species, which might be thought to resemble little black feet. These achenes (of the ray florets) are not nearly filled by the ovule, constituting apparently moist chambers similar in function to the bladder-like pods of some Astragalines.

T. D. A. COCKERELL.

BOULDER, COLORADO.

PROCEEDINGS OF THE CLUB

WEDNESDAY, FEBRUARY 22, 1905

This meeting was held at the N. Y. Botanical Garden, Professor L. M. Underwood in the chair and twenty-one members present.

A letter was read from Dr. MacDougal explaining his inability to present his announced paper on "The Origin of Species by Mutation or Saltation."

A contribution to the knowledge of the local flora by Mrs. Livingston and Miss Crane was communicated by Dr. W. A. Murrill and read by Professor Underwood. The authors had worked on the fungi, and had identified 195 species in 82 genera and 17 families, all from Scarsdale, N. Y. The remainder of the program consisted of remarks on the genus *Lycopodium*, being some of the results of the joint labors of Professor F. E. Lloyd and Professor L. M. Underwood, which will soon be published in the *Bulletin*; Professor Lloyd spoke from a morphological standpoint and Professor Underwood from the systematic and general. Professor Lloyd called attention to the diagnostic differences which were brought out by the wet method used for the investigations, differences not distinguishable in dried material. The Lycopods fall naturally into two physiological groups as shown by their morphological characters, dependent upon habit—a radially symmetrical type for those species which are erect or pendent,

and a bilaterally symmetrical type, which may be purely physiological due to a twisting of leaves or stems or to the development of dimorphism in the leaves. Many interesting features were brought out with the aid of blackboard drawings.

Professor Underwood spoke of the number of new species brought to light by recent exploration and comparative study of material from the American tropics. The Lycopods, which in our latitude are inconspicuous and comparatively infrequent, in the tropics occasionally become weeds of large size and great beauty, growing especially in high altitudes; in fact most of the more interesting tropical Pteridophyta are found above the 5,000-foot level. Many specimens were exhibited, some of which admirably contrasted the old and the new methods of collecting herbarium material.

After considerable discussion, adjournment followed.

EDWARD W. BERRY,

Secretary.

TUESDAY, MARCH 14, 1905

The meeting was held at the American Museum of Natural History, President Rusby in the chair and twenty-five additional members present.

The Field Committee presented a formal report for 1904, which was received and filed.

Miss Helen L. Palliser, of Brooklyn, N. Y., was elected an active member.

The first paper on the scientific program was by Dr. N. L. Britton, and was entitled "A Botanical Cruise in the Bahamas."

The speaker had just returned from several weeks' exploration in the Bahamas and gave a general account of the trip.

The numerous islands — there are over 2,700 islands, keys, and projecting rocks — are all of the same general type in that they consist of coral limestone. The group is so scattered, extending for more than four degrees of latitude and somewhat farther from east to west, that there is considerable variation in temperature and rainfall.

A remarkable feature of the islands is the abundant and almost impenetrable thickets growing directly out of the rock; in fact,

there is very little soil except that known as "red land," which occurs in the bottom of sink-holes and locally in swales, and the "white land," formed from the crumbled rock either disintegrated in place or accumulated as sand dunes. These two formations represent practically all the tillable land of the islands. Owing to the porous nature of the material there are no known permanent fresh-water streams although there are a number of salt-water creeks of considerable size. Occasionally there are fresh-water ponds and marshes, mostly of small size. These very local ponds and marshes furnish many of the botanical novelties. Salt-water ponds which rise and fall with the tide are abundant and sometimes of large size.

The Bahamas are very recent geologically, the Bahamian uplift being placed not earlier than the late Tertiary, so that they offer excellent opportunities for the study of plant migration and evolution. The flora is of southern derivation, a large number of the known indigenous species being common to the near-by and older islands of Cuba and Hayti, while many other species are closely related to plants from these islands. The chief agents in the introduction and distribution of the plant population are migratory birds, supplemented by winds and ocean currents. Notwithstanding the geologically short period that the Bahamas have been above the sea, they have witnessed the evolution of numerous species, there being many endemic species known and many more which will be made known as the result of the recent explorations. Many of these, it is believed, will prove to be examples of rapid evolution (mutation).

Dr. Britton's observations were followed by remarks on "Collecting Algae in the Bahamas," by Dr. Marshall A. Howe. The shores of the islands were said to offer a considerable variety of physical conditions and to have a marine flora which is on the whole varied and rich, though apparently less so than that of the Florida Keys. The shore-lines are usually rocky, but there are often stretches of white sand which are nearly destitute of algae. The tide rises and falls ordinarily from one to four feet, but the withering effect of the sunshine is such that few species are found in the strictly littoral zone except under shelving rocks

or where the shore is subject to an almost continuous spraying from the waves. A deeply shaded shelf under a remarkable rock overhang on the Cave Cays of the Exuma Chain furnished some of the most interesting algae obtained on the recent expedition. The so-called creeks constitute good collecting grounds, especially if well exposed to tidal currents, and the roots of the red mangrove, which commonly borders such, always harbor algae of interest, particularly when standing in water that is three feet or more deep at low tide. Nearly all the larger islands have brackish ponds which have a peculiar flora, varying in character with the salinity of the water. Hundreds of square miles in the Bahamian region are occupied by the "banks," on which the water is very shallow, mostly from five to twenty feet deep; these banks often consist of clean white sand with little visible organic life, yet in many places are found, more or less abundantly, representatives of such genera as *Penicillus*, *Rhipocephalus* and *Udotea*, growing directly out of the sand, and *Microdictyon*, *Gymnosorus*, *Wurdemannia*, *Laurencia*, *Chondria*, *Herposiphonia* and others attached to sponges, corals, sea-fans, etc. In the winter and spring months, at least, very little is found washed ashore except species of *Sargassum* and their epiphytes.

The speaker remarked upon the desirability of extensive dredging operations in order to complete our knowledge of the marine flora of the Bahamian archipelago. A few characteristic specimens of Bahamian marine algae were exhibited. Special attention was directed to four species of *Penicillus*, viz., *P. capitatus*, *P. dumetosus*, *P. Lamourouxii*, and the recently described *Penicillus pyriformis*. *Rhipocephalus Phoenix* and *R. oblongus*, and various species of *Udotea*, *Arrainvillea* and *Halimeda* were also discussed.

Mrs. Britton, who accompanied the expedition, spoke more particularly of the flora of the island of New Providence, where she spent the time collecting, while the other members of the party were cruising. Several exceedingly fine photographs of the local scenery were exhibited.

EDWARD W. BERRY,
Secretary.